AMENDMENTS TO THE CLAIMS

Please amend claim 40, add claims 50 and 51, and cancel claim 43, as set forth in the following listing of claims, which will replace all prior versions, and listings, of claims in the present application.

Listing of Claims

1-27. (Canceled)

28. (Previously Presented) An electronic labeling system for displaying information related to items on a shelf, comprising:

a flexible antenna strip connected to the shelf;

one or more electronic labels coupled to the antenna strip, each of said electronic labels comprising a pixel-addressable display layer including electronic ink disposed on a support, wherein the antenna strip communicates with said one or more electronic labels regarding the information related to items on the shelf to be displayed by the display layer; and

a transceiver coupled to the antenna strip for receiving and sending signals to the antenna strip regarding the information related to items on the shelf to be displayed by the label.

29. (Original) The electronic labeling system of claim 28, further comprising a control system in communication with the transceiver comprising a processor and a storage element for determining the information to be displayed by the label.

30. (Original) The electronic labeling system of claim 29, wherein the control system and the transceiver communicate via radio wave transmission.

31. (Original) The electronic labeling system of claim 28 wherein the antenna is inductively coupled to the label.

32. (Original) The electronic labeling system of claim 28, wherein the antenna is capacitively coupled to the label.

33. (Original) The electronic labeling system of claim 28, further comprising a plurality of flexible antenna strips connected to the transceiver, wherein each of said flexible antenna strips is coupled to at least one electronic label.

34. (Previously Presented) An electronic shelf label for displaying information related to at least one item on a shelf, comprising:

a display assembly including electronic ink disposed on a support,

one or more antennas for sending or receiving signals corresponding to one of instructions, programs, data or selected indicia to be displayed by said display assembly,

a storage element in circuit with said one or more antenna for storing said instructions, programs, data and indicia,

one or more processors in circuit with said display assembly, said storage element and said antenna for intelligently determining said indicia, relating to the at least one item on the shelf, to be displayed by said display assembly, for controlling and coordinating operation of the label, and for generating output signals for instructing the display assembly to display the indicia, wherein the label is coupled to the shelf, and

a securing mechanism for coupling the label to the shelf.

35. (Original) The label of claim 34, wherein the label is mounted on the front of the shelf.

36. (Original) The label of claim 35, wherein the shelf has a molding and the label is mounted in the molding.

37. (Original) The label of claim 35, wherein the label has a shape that matches the shape of the front of the shelf.

38. (Original) The label of claim 35, wherein the label has a convex shape.

39. (Original) The label of claim 35, wherein the label has a concave shape.

40. (Currently Amended) An electronic label for displaying information, comprising :

a display assembly including electronic ink disposed on a support, and

a rechargeable thin film battery coupled to the display assembly for providing power to the display assembly wherein the battery is rechargeable via ambient power in the environment.

41. (Canceled)

42. (Previously Presented) The label of claim 40, wherein the label has a transceiver for sending and receiving signals regarding the information displayed by the label and the battery is rechargeable by the transceiver.

43. (Canceled)

44. (Original) The label of claim 40, further comprising an antenna for sending or receiving signals corresponding to one of instructions, programs, data or selected indicia to be displayed by said display assembly.

45. (Original) The label of claim 44, wherein the label sends and receives signals between a processor via a wireless local area network.

46-47. (Canceled)

48. (Original) A stacked, layered electronic label suitable for displaying information, said label comprising:

one or more display layers including electronic ink disposed on a support,

a flexible integrated circuit layer electrically connected to the display layer;

a radio-frequency identification (RFID) layer electrically coupled to the integrated circuit layer including an antenna and a transceiver for receiving and generating output signals instructing the display layer to display the information,

wherein said display layer, said integrated circuit layer and the RFID layer are stacked together to form said stacked electronic label.

49. (Previously Presented) The label of claim 48, wherein the RFID layer communicates with a central controller regarding the information to be displayed by the label.

50. (New) A smart electronic label system suitable for displaying information in connection with a mammal, non-mammal, item or location, said label system comprising a label assembly providing a combination including

a display assembly including electronic ink comprising an arrangement of microcapsules disposed on a support, each microcapsule having disposed therein an electrophoretic composition of a fluid and a suspension of particles,

an activation grid for activating said electronic ink in said display assembly,

a receiver for receiving signals corresponding to selected indicia to be displayed by said display assembly,

a transmitter for transmitting signals from said electronic label,

a storage element in circuit with at least one of said display assembly, said receiver, said transmitter, the storage element storing information associated with said indicia to be displayed by said display assembly through said electronic ink, which comprises a bi-stable, non-volatile imaging material,

a processor in circuit with at least one of said display assembly, said storage element, said receiver, said transmitter, said processor used for generating output signals employed by said display assembly for displaying the indicia through said bi-stable, non-volatile imaging material, and

an on-board power source for generating power for powering the electronic label

said combination being cooperatively operable

a) to activate said bi-stable, non-volatile imaging material using a power source on said label,

b) to cause said bi-stable, non-volatile imaging material to provide enduring activation thereof independent of maintenance of said signals, and

c) said bi-stable, non-volatile imaging material providing a display related to the intended function of said label, and allowing said display to remain visible and stable.

51. (NEW) A stacked, layered electronic label suitable for displaying information, said label providing a combination comprising

one or more display layers including electronic ink comprising a bi-stable, non-volatile imaging material disposed on a support,

one or more activation grid layers for activating said imaging material,

one or more antenna layers for sending or receiving signals corresponding to programs, instructions, data or indicia to be displayed by said display assembly,

a processor layer including one or more processors and a storage element, said storage element storing one of indicia, data, programs and instructions, said processor layer in circuit with said display layer, said activation layer, and said antenna layer for determining intelligently indicia to be displayed by said display layer, for controlling and coordinating operation of said label, and for generating output signals for instructing the display layer to display the indicia through said imaging material, and

an on-board power source for providing power for one or more components of the label assembly

wherein said display layer, said antenna layer, said activation grid layer, and said processor layer are stacked together to form said stacked electronic label;

said combination being cooperatively operable

a) through operation of said one or more antenna layers, to activate said bi-stable, non-volatile imaging material using the power source on said label,

b) to cause said imaging material to provide enduring activation thereof independent of maintenance of said signals, and

c) said signal activated, imaging material providing a display related to the intended function of said label, with said bi-stable, non-volatile imaging material allowing said display to remain visible and stable.